CLAIMS

1. A process for producing predetermined exogenous recombinant polypeptides or proteins, comprising expressing said polypeptides or proteins in *Escherichia coli* (*E. coli*) strains whose gene encoding RNase E comprises a mutation such that the enzyme produced upon expression of this mutated gene no longer possesses activity for degrading messenger RNA (m-RNA), said mutation not significantly affecting growth of the said *E. coli* strains.

2. The process according to claim 1, characterized in that the gene encoding RNase E comprises a mutation such that the enzyme produced upon expression of this mutated gene preserves the activity for maturation of ribosomal RNA (r-RNA) of the RNase E, but no longer possesses activity for degradation of m-RNA.

3. The process according to claim 1, characterized in that the mutation consists of the substitution or deletion of one or several nucleotides from the region of the gene encoding for the C-terminal portion of RNase E.

4. The process according to claim 1, characterized in that the mutation corresponds to the substitution or deletion of one or several nucleotides from the region delimited by the

nucleotides situated at position 1935 and the nucleotide situated at position 3623 of the DNA sequence encoding the RNase E represented by SEQ ID NO: 1.

5. The process according to claim 1, characterized in that the mutation causes modification or deletion of at least one amino acid from the C-terminal portion of the RNase E.

6. The process according to claim 1, characterized in that the mutation causes the deletion of at least one, up to all, of the last 563 amino acids of the sequence of RNase E represented by SEQ ID NO: 2.

7. The process according to claim 1, characterized in that the said strains contain an exogenous inducible expression system, under the control of which is placed the expression of the predetermined recombinant polypeptides, and wherein the expression system comprises RNA polymerase of the T7 bacteriophage.

8. *E. coli* strains transformed such that they contain an exogenous inducible expression system, and whose gene encoding RNase E comprises a mutation such that the enzyme produced upon expression of this mutated gene no longer possesses activity for degradation of m-RNA, this mutation not significantly affecting growth of the said *E. coli* strains.

9. *E. coli* strains according to claim 8, transformed such that they contain an exogenous inducible expression system, and whose gene encoding RNase E comprises a mutation such that the enzyme produced upon expression of this mutated gene conserves the activity for maturation of r-RNA of the RNase E, but no longer possesses activity for degradation of m-RNA.

10. *E. coli* strains according to claim 8, characterized in that the inducible expression system uses RNA polymerase of the T7 bacteriophage.

11. *E. coli* strains according to claim 8, characterized in that the mutation consists of the substitution or deletion of one or several nucleotides from the region of the gene encoding for the C-terminal portion of RNase E.

12. *E. coli* strains according to claim 8, characterized in that the mutation corresponds to the substitution or deletion of one or several nucleotides at the region delimited by the nucleotide situated at position 1935 and the nucleotide situated at position 3623 of the DNA sequence encoding the RNase E represented by SEQ ID NO: 1.

13. *E. coli* strains according to claim 8, characterized in that the mutation causes the modification or deletion of at

least one amino acid from the C-terminal portion of the RNase E.

14. *E. coli* strains according to claim 8, characterized in that the mutation causes the deletion of at least one, and up to all, of the last 563 amino acids of the sequence of RNase E represented by SEQ ID NO:2.

15. *E. coli* strains according to claim 8, characterized in that the inducible expression system controls the transcription of a DNA sequence encoding one or several predetermined recombinant polypeptides.

16. Process for producing predetermined recombinant polypeptides, characterized in that it comprises:

- a step of transforming *E. coli* strains whose gene encoding RNase E comprises a mutation such that enzyme produced upon expression of this mutated gene no longer possesses degradation activity for m-RNA, this mutation not significantly affecting growth of the said *E. coli* strains, with a plasmid vector containing the nucleotide sequence encoding one or several recombinant polypeptides,

- culturing the transformed *E. coli* strains obtained in the preceding step, for a time sufficient to permit expression

of the recombinant polypeptide or polypeptides in the *E. coli* cells,

- and recovery of the recombinant polypeptide or polypeptides produced during the preceding step, optionally after purification of said recombinant polypeptide or polypeptides by chromatography, electrophoresis, or selective precipitation.

17. Process for producing predetermined recombinant polypeptides according to claim 16, characterized in that it comprises:

- a step of transforming *E. coli* strains, with a plasmid vector containing the nucleotide sequence encoding one or several recombinant polypeptides, so as to obtain *E. coli* strains, in which transcription of the said nucleotide sequence encoding one or several recombinant polypeptides is placed under control of an inducible expression system,

- culturing the transformed *E. coli* strains obtained during the preceding step, and inducing the said expression system, for a time sufficient to permit expression of the recombinant polypeptide or polypeptides in the *E. coli* cells,

- and recovery of the recombinant polypeptide or polypeptides produced during the preceding step.